AVANIR.C61CP3 PATENT

## WHAT IS CLAIMED IS:

1. A pharmaceutical composition for treating or preventing an allergic reaction associated with increased IgE levels in a mammal comprising the following compounds:

Genus A,

Genus B, and

Genus C,

wherein X and Y are independently selected from the group consisting of H, alkyl, alkoxy, aryl, substituted aryl, hydroxy, halogen, amino, alkylamino, nitro, cyano, CF<sub>3</sub>, OCF<sub>3</sub>. CONH<sub>2</sub>, CONHR and NHCOR<sub>1</sub>;

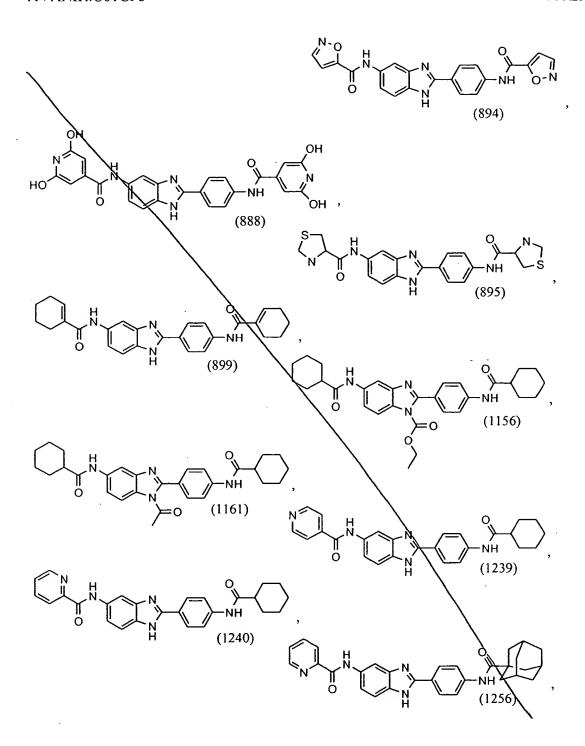
wherein R is selected from the group consisting of H, CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub>, C<sub>3</sub>H<sub>7</sub>, C<sub>4</sub>H<sub>9</sub>, CH<sub>2</sub>Ph, CH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>-F(p-), COCH<sub>3</sub>, CO<sub>2</sub>CH<sub>2</sub>CH<sub>3</sub>, aminoalkyl and dialkylaminoalkyl; and

wherein R<sub>1</sub> and R<sub>2</sub> are independently selected from the group consisting of H, aryl, heteroaryl, thiophene, pyridyl, thiazolyl, isoxazolyl, oxazolyl, pyrimidinyl, substituted aryl, substituted heteroaryl, substituted thiophene, substituted pyridyl, substituted thiazolyl, substituted isoxazolyl, substituted oxazolyl, cycloaryl, cycloheteroaryl, quinolinyl, isoquinolinyl, substituted cycloaryl, substituted cycloheteroaryl, substituted quinolinyl, substituted isoqunolinyl, multi-ring cycloaryl, multi-ring cycloheteroaryl, benzyl, heteroaryl-methyl, substituted benzyl, substituted heteroaryl-methyl alkyl, dialkylaminoalkyl, cycloalkyl, cycloalkyl containing 1-3 heteroatoms, substituted cycloalkyl, substitute cycloalkyl containing 1-3 heteroatoms, multi-ring cycloalkyl, multiring cycloalkyl containing 1-3 heteroatoms, fused-ring aliphatic, fused-ring aliphatic containing 1-3 heteroatoms, cyclopropyl, substituted cyclopropyl, cyclobutyl, substituted cyclobutyl, cyclopentyl, pyrrole, piperidine, substituted cyclopentyl, cyclohexyl, substituted cyclohexyl, cycloheptyl, substituted cycloheptyl, bicycloheptyl, substituted pyrrole, substituted piperidine, bicyclooctyl, bicyclononyl, substituted bicycloalkenyl, adamantyl, and substituted adamantyl, wherein at least one of R<sub>1</sub> and R<sub>2</sub> are aromatic groups or heteroaromatic groups.

- 2. The pharmaceutical composition of Claim 1, wherein the substituents on said substituted aryl, substituted heteroaryl, substituted thiophene, substituted pyridyl, substituted thiazolyl, substituted isoxazolyl, substituted oxazolyl, substituted cycloaryl, substituted cycloheteroaryl, substituted quinolinyl, substituted isoqunolinyl, substituted benzyl, substituted heteroaryl-methyl alkyl, substituted cycloalkyl substitute cycloalkyl containing 1-3 heteroatoms, substituted cyclopropyl, cyclobutyl, substituted cyclohetyl, substituted cyclohetyl, substituted cyclohetyl, substituted cycloheptyl, substituted pyrrole, substituted piperidine, bicyclooctyl, bicyclononyl, substituted bicycloalkenyl, adamantyl, and substituted adamantyl are independently selected from the group consisting of alkyl, aryl, CF<sub>3</sub>, CH<sub>3</sub>, OCH<sub>3</sub>, OH, CN, CONH<sub>2</sub>, CONHR, CONR1R2, COOR and COOH.
- 3. The pharmaceutical composition of Claim 1, further comprising at least one additional ingredient which is active in reducing at least one symptom associated with said allergic reaction.

4. The pharmaceutical composition of Claim 3, wherein said at least one additional ingredient is selected from the group consisting of a short-acting  $\beta_2$ -adrenergic agonist, a long-acting  $\beta_2$ -adrenergic agonist, an antihistamine, a phosphodiesterase inhibitor, an anticholinergic agent, a corticosteroid, an inflammatory mediator release inhibitor and a leukotriene receptor antagonist.

5. The pharmaceutical composition of Claim 1, wherein the compound is selected from the group consisting of:



- 6. A method for treating or preventing an allergic reaction in a mammal wherein said reaction is caused by an increase in IgE levels comprising administering an IgE-suppressing amount of at least one compound of Claim 1.
- 7. The method of Claim 6, further comprising administering in conjunction with at least one additional ingredient which is active in reducing at least one symptom associated with said allergic reaction.
- 8. The method of Claim 7, wherein said additional ingredient is selected from the group consisting of a short-acting  $\beta_2$ -adrenergic agonist, a long-acting  $\beta_2$ -adrenergic agonist, an antihistamine, a phosphodiesterase inhibitor, an anticholinergic agent, a corticosteroid, an inflammatory mediator release inhibitor and a leukotriene receptor antagonist.
- 9. The method of Claim 6, wherein the compound is selected from the group consisting of:

HO OH OH NH2

NH (342)

NH (584)

NH (639)

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- 10. A method for treating or preventing asthma in a mammal comprising administering an IgE-suppressing amount of at least one compound of Claim 1.
- 11. The method of Claim 10 further comprising administering in conjunction with at least one additional ingredient which is active in reducing at least one symptom associated with said allergic reaction.

- 12. The method of Claim 11, wherein said additional ingredient is selected from the group consisting of a short-acting  $\beta_2$ -adrenergic agonist, a long-acting  $\beta_2$ -adrenergic agonist, an antihistamine, a phosphodiesterase inhibitor, an anticholinergic agent, a corticosteroid, an inflammatory mediator release inhibitor and a leukotriene receptor antagonist.
- 13. The method of Claim 10, wherein the compound is selected from the group consisting of:

HO 
$$\stackrel{}{\longrightarrow}$$
  $\stackrel{}{\longrightarrow}$   $\stackrel{}{\longrightarrow}$ 



$$F_{3}C$$

$$\downarrow N$$

$$\downarrow$$

(888) (895) (1156) (1161) (1240)

(1306)

M

(1257) (1259) (1301) (1303)

, and

(1305)

add >